



COMMENTARY NO. 503

Righting the Course: A Shadow Federal Budget for 2018

The 2018 Federal Shadow Budget urges the government to think longer term, with a framework that will reassure Canadians about the sustainability of fiscal policy while responding to sharper competitive pressure on trade and taxation.

> William B. P. Robson, Alexandre Laurin and Rosalie Wyonch

ABOUT THE AUTHORS

WILLIAM B. P. ROBSON

is President and CEO of the C.D. Howe Institute.

Alexandre Laurin

is Director of Research at the C.D. Howe Institute.

Rosalie Wyonch

is Policy Analyst at the C.D. Howe Institute.

Commentary No. 503 February 2018 Fiscal and Tax Policy

\$12.00 ISBN 978-1-987983-57-9 ISSN 0824-8001 (print); ISSN 1703-0765 (online)

THE C.D. HOWE INSTITUTE'S COMMITMENT TO QUALITY, INDEPENDENCE AND NONPARTISANSHIP

The C.D. Howe Institute's reputation for quality, integrity and nonpartisanship is its chief asset.

Its books, Commentaries and E-Briefs undergo a rigorous two-stage review by internal staff, and by outside academics and independent experts. The Institute publishes only studies that meet its standards for analytical soundness, factual accuracy and policy relevance. It subjects its review and publication process to an annual audit by external experts.

As a registered Canadian charity, the C.D. Howe Institute accepts donations to further its mission from individuals, private and public organizations, and charitable foundations. It accepts no donation that stipulates a predetermined result or otherwise inhibits the independence of its staff and authors. The Institute requires that its authors publicly disclose any actual or potential conflicts of interest of which they are aware. Institute staff members are subject to a strict conflict of interest policy.

C.D. Howe Institute staff and authors provide policy research and commentary on a non-exclusive basis. No Institute publication or statement will endorse any political party, elected official or candidate for elected office. The Institute does not take corporate positions on policy matters.



Daniel Schwanen Vice President, Research

The Study In Brief

The C.D. Howe Institute's Shadow Federal Budget for 2018 looks past the deficits the federal government has deliberately created in the near term, and urges the government to think longer term, with a framework that will reassure Canadians about the sustainability of fiscal policy while responding to sharper competitive pressure on trade and taxation. Balancing astute spending measures and cost savings with revenue generation can inspire confidence that the country is ready for the longer-term challenges of slower growth and an aging population – a good backdrop for measures that support economic growth and job creation, and promote opportunities for all Canadians.

This Shadow Budget responds to competitive pressures from US tax reforms with some immediate measures, and lays the foundation for more fundamental reforms that will have a lasting impact on Canadian productivity and incomes. Two quick changes to accelerate write-offs of business investment will signal Canada's readiness to restore some of our lost competitiveness for new investments. Longer term, establishment of an allowance for corporate equity that relieves ordinary returns to capital from corporate income tax would make Canada more attractive for domestic and foreign investors.

This Shadow Budget holds the line on the federal government's own operating costs and eliminates some poorly designed or targeted tax preferences. It improves environmentally motivated taxation by establishing a higher GST rate on transportation fuels and eliminating the aviation fuel tax. It reorients infrastructure spending toward projects on which the federal government can move quickly and efficiently. It further improves the transparency of government finances and the ability of legislators to control public money.

Other policies advancing Canada's openness to trade and competition, and supportive of higher student achievement, will further strengthen the country's economic capacity. This Shadow Budget also expands individual opportunities by facilitating the movement of human talent to where job prospects are brighter and rewards greater, and by fostering more saving opportunities and income security for our seniors, now and in the future.

On the spending side, this Shadow Budget proposes to dispose of non-core assets and increase private investment in infrastructure by selling selected airport leases, reduce punitive personal income taxes, continue to invest in education for Indigenous children, and provide a more generous tax treatment for nondiscretionary medical expenses.

In summary, this Shadow Budget promotes economic growth with reforms that will attract investment, promote international trade, and encourage work and saving. It sets federal finances on a longer-term course back to balance, assuring Canadians that they can pursue their lives and work, save and invest with confidence.

C.D. Howe Institute Commentary \bigcirc is a periodic analysis of, and commentary on, current public policy issues. James Fleming edited the manuscript; Yang Zhao prepared it for publication. As with all Institute publications, the views expressed here are those of the authors and do not necessarily reflect the opinions of the Institute's members or Board of Directors. Quotation with appropriate credit is permissible.

To order this publication please contact: the C.D. Howe Institute, 67 Yonge St., Suite 300, Toronto, Ontario M5E 1J8. The full text of this publication is also available on the Institute's website at www.cdhowe.org.

A recurrent theme at budget time is uncertainty over the immediate and long-term economic outlook.

Responsible budgets respond to this uncertainty with a disciplined approach to spending, ensuring flexibility in the near and longer term to deal with negative surprises, while ensuring that the expected path creates room for reforms that will spur economic growth and raise living standards for all Canadians.

In the run-up to the 2018 federal budget, developments abroad and at home have created near-term concerns with long-term implications. The combination of uncertainty over Canada's access to US markets and inputs under the NAFTA and the greater attractiveness of the United States to business investment following recent tax reforms affect Canada's fiscal priorities. At home, recent tax changes and rhetoric suggesting that Canadians who succeed economically are making gains at the expense of others are encouraging entrepreneurs and managers to look abroad for opportunities. Moreover, the lack of a firm budget framework has deprived the government of tools with which to prevent demands of various stakeholders from driving spending and borrowing beyond responsible limits.

This Shadow Budget puts a framework of sustainable finance front and centre. It balances increases in spending with revenue generation and cost-saving measures. It is designed to provide Canadian families and businesses with confidence that the country will successfully meet the challenges of slow growth, lower commodity prices and an aging population. By establishing this trust through prudent fiscal management, Ottawa can support economic growth and job creation, and promote opportunities for all Canadians, thereby improving prosperity.

This Shadow Budget puts forward tax policies responding to competitive pressures from the US reform in the very short term, and lays the foundation for more fundamental reforms that will have a lasting impact on productive capacity, thereby benefiting all Canadians. Other policies advancing our openness to trade and competition, and supportive of educational improvements, will further strengthen economic capacity. The Shadow Budget supports fiscal sustainability through prudent restriction of federal expenses, the exploration of new revenue streams and improving the accountability of government finances. It would also expand individual opportunities by facilitating the movement of human talent to where it is most needed and where job prospects are brighter, and by creating the conditions for greater financial stability for our seniors, now and in the future.

Parallel with the promise to give Canadians confidence in the federal government's fiscal framework should be a commitment to greater budget transparency (Busby and Robson 2017). In addition to offering financial reporting improvements and producing estimates that are consistent with the budget, our Shadow Budget moves the fiscal plan summary – buried in an annex on page 251 of Ottawa's 2017 budget – to the front (See Table 1).

ECONOMIC AND FISCAL Framework

Strong economic growth in 2017 produces expectations for higher revenues going forward than were anticipated in the 2017 federal

We thank members of the C.D. Howe Institute's Fiscal and Tax Competitiveness Council, Don Drummond and anonymous reviewers for ideas and comments on earlier drafts and previous Institute Shadow Federal Budgets. Responsibility for the ideas and numbers presented here, and for any errors, is ours.

Table 1: Fiscal Projections with Shadow Budget Initiatives			
	2017/18	2018/19	2019/20
		(\$ billion)	
Baseline Projections			
Revenues	310.7	323.1	333.3
Expenditures	-329.1	-338.8	-347.7
Budgetary Balance before Initiatives	-18.4	-15.7	-14.4
Shadow Budget Initiatives			
Inclusive Innovative Economic Growth		4.7	4.1
Achieving Fiscal Sustainability		1.0	2.0
Improving Opportunities for Canadians		-1.2	-1.2
Total		4.5	4.9
New Budgetary Balance	-18.4	-11.2	-9.5
Accumulated deficit	631.9	643.1	652.6
as % of GDP	29.5	28.9	28.3

budget. The 2017 growth spurt means that fiscal revenues grow from a larger base, enhancing the federal government's fiscal room throughout the projection period.

A Subdued Outlook

While 2017's rapid growth may spur investments that increase Canada's productive capacity by more than anticipated a year ago, however its main effect was to reduce economic slack faster than expected, and recent indicators of labour-market pressure and prices suggest that Canada's economy is now operating at, or slightly above, capacity. As a result, growth expectations for 2018 and 2019 are not higher. Slower growth of productive capacity, with demographics being a notable constraint, mean that Canadian governments cannot depend on robustly rising tax revenues to finance spending commitments. A confidence-inspiring budgetary framework begins with prudent forecasting.

This Shadow Budget uses as its baseline the economic and fiscal projections from the Department of Finance's October 2017 "Fall Economic Statement" (Canada 2017). Overall, real and nominal GDP for 2017 is higher than anticipated in the 2017 budget by more than one percentage point. Looking ahead, the average of economic forecasts used by Finance Canada puts real growth at 2.1 percent for 2018 and 1.6 percent in 2019. As for nominal growth, the forecasts anticipate that it will be 4.0 percent in 2018 and a meagre 3.4 percent in 2019 (Table 2).

Projections in the fall statement are based on the average of the forecasts in the September survey of private-sector economists. The Finance department

Table 2: Ottawa's Forecasts of Real and Nominal GDP Growth (Percent)						
	2017		2018		2019	
	Real	Nominal	Real	Nominal	Real	Nominal
Budget 2017	2.0	4.2	2.0	4.0	1.7	3.5
2017 Fall Fiscal Statement	3.1	5.5	2.1	4.0	1.6	3.4

Source: Finance Canada's Fall Economic Statement (Canada 2017).

has been surveying private-sector economists and using the average of their forecasts in setting baseline budgetary economic expectations for more than 20 years now.

Despite a great deal of variability in economic growth forecast errors year-over-year, private sector economists' growth forecasts have been relatively good on average over the last 21 years. Errors in economic growth projections tend to cancel out over time, which means that on average over a long enough period unanticipated budgetary deficits will be offset by unanticipated surpluses.

Therefore, some prudence is already embedded in baseline forecasts, which calls into question the need for the repeated use of contingency reserves. A major drawback of contingency reserves is that they increase the risk that positive budgetary surprises lead to unbudgeted last-minute spending of the reserve amounts without proper accountability (Busby and Robson 2017). The Fall Economic Statement added \$3 billion per year for the next 5 years to projected spending as a reserve for risks. This year's Shadow Budget abandons the use of this contingency reserve.

A Challenging Baseline

The resulting Shadow Budget planning baseline starts with a \$18.4 billion deficit in the current 2017/18 fiscal year ending on March 31, followed by a \$15.7 billion deficit in 2018/19 and \$14.4 billion in 2019/20 (Table 3). During the 2015 election campaign, the Liberals committed to deficits of about \$10 billion related to new infrastructure spending before achieving a modest surplus of \$1 billion in 2019/20. This promise was based on a misunderstanding on the part of the platform's designers, or perhaps an assumption that Canadians did not know that the government amortizes capital, and that no conceivable amount of capital spending could add \$10 billion annually to current expenses. In any event, the government has run deficits considerably larger than promised, and is currently not on track for a return to surpluses as per the campaign commitment.

Recognizing that deficits have become a signature policy for the government, this Shadow Budget adopts a relaxed approach to the bottom line throughout the projection period, while reorienting both revenue and spending to better support growth. This approach will ensure that Ottawa can restart budget surpluses during the life of the next Parliament.

INCLUSIVE, INNOVATIVE ECONOMIC Growth

In a challenging economic environment, Canada needs fiscal measures that will boost productive capacity that benefit all Canadians. This Shadow Budget emphasizes growth-friendly tax policies, openness to trade and competition, and supportive reform of institutions and regulations (Table 4).

Competitive Business Taxation for the 21st Century

The amount of tax that a business pays, and the wedge taxes drive between potential returns on investment and what investors actually enjoy, reflects many circumstances. The applicable statutory corporate tax rate matters, as do allowable expenses and other provisions such as offsets for prior losses. When these provisions create high marginal effective tax rates (METRs) on the returns to investment, they discourage capital spending by businesses, hurting job creation, productivity, and growth.

The US Challenge

The recently enacted US tax reform promises to spur US investments and economic growth, change cross-border tax planning, and potentially damage the competitive landscape for corporate investments in Canada. Even though Canadian exports stand to benefit from a stronger US economy in the short term, subject to the ongoing NAFTA renegotiation, the negative impact on domestic investments relative to the US could hurt Canadian jobs and Canada's relative productivity in the longer term.

The reduction in the US corporate tax rate from 35 percent to 21 percent, along with an immediate tax write off for many capital expenses, considerably raise the attractiveness of the United States for new equity-financed business investment. Combined with the adoption of a territorial system for the taxation of foreign affiliates' profits, mimicking those of Canada and many other advanced nations, the new US tax system may steer investments in projects to serve the North American and world markets away from Canada and into the United States.

In Canada, successive reforms during the early 2000s lowered the METR on new capital investments, with the 20.1 percent national average METR now slightly below that of many major competitors. However, this advantage has been eroding, with Canada's tax burden on new investment rising from 17.5 percent in 2012 to 20.1 percent in 2016 (Bazel and Mintz 2016). Meanwhile, the US corporate tax reform brings down the METR in many industries such as utilities, construction, transportation, and manufacturing. US METRs in most sectors were several percentage points higher than Canada's early in this decade; now they are lower than Canada's. On aggregate in all industries, the US METR will be about one point lower, or about 19 percent (Bazel and Mintz 2017).

This Shadow Budget responds to these pressures with measures to improve the incentives in Canada's business taxation regime and by launching a more thorough reform that would make Canada more hospitable to capital investment. In addition, since fundamental reforms and changes in investment levels take time to fully materialize, the Shadow Budget provides immediate help needed to restore some of our lost competitiveness for new investment by implementing two temporary changes to our tax depreciation system.

Faster Expensing of Capital Investments

Two easy-to-implement changes to our depreciation system would substantially improve the investment climate and short-run competitiveness:

- Eliminating the "half-year rule" would enable businesses to claim in the first year the maximum depreciation deduction otherwise available, as opposed to only one-half; and
- Eliminating the "available-for-use" requirement would mean that large multi-year projects could start to be written off as cash investments are made, as opposed to when the entire projects becomes available for use.

Both changes would primarily affect the timing of write offs. Assuming that tax rates remain constant and the investment remains profitable, the overall fiscal cost for these temporary investment incentives would likely be small. In any event, the long-run cost of doing nothing immediately certainly outweighs their immediate likely negligible fiscal cost.

A Better Way to Support Young, Growing Businesses

Canada's corporate income tax provides a Small Business Deduction that effectively produces a lower tax rate on small firms. While the rationale for the deduction – recognizing that younger and smaller firms do not benefit from some economies of scale available to larger firms – is attractive, the lower tax rate discourages businesses from growing past the point where their taxes would increase.

Dachis and Lester (2015) point out that the government, in effect, finances the lower small business tax rate with lower spending or higher taxes elsewhere. If the tax burden on large firms is higher as a result, the Small Business Deduction is expanding the small- business sector at the expense of large businesses. Since small firms, in general, are less productive, and unambitious firms are almost by definition less productive, this distortion damages Canada's overall economic performance.

At the same time, the Small Business Deduction may encourage self-employed individuals to incorporate in order to access the lower tax rate. Business owners using small private corporations to engage in personal income tax planning was the focus of last year's debate and anti-avoidance policies adopted by the federal government.

A better approach would be to provide the Small Business Deduction for young, growthoriented firms rather than simply all businesses that are small. Targeting such young firms would help mitigate the growth-disincentive tax effect (Howitt 2015). This approach, however, presents many practical challenges. Among them: ensuring that businesses cannot roll over their assets to a new company at regular intervals; and limiting fragmentation of business activities or other artificial arrangements using subsidiary or agent companies.

Another option would be to provide for the immediate expensing of capital investments for tax purposes, similar to what is now offered in the US with the reform. Expensing new capital investments up to a limit of perhaps \$200,000 annually, as in Chen and Mintz (2011), would effectively target the preferential small business tax rate to those businesses pursuing growth-oriented strategies. It would have the additional advantage of benefiting growing small companies rather than private corporations whose main purpose is to reduce personal income taxes on business income. This Shadow Budget will adopt this option, following a consultation period on the merits of both options, the optimal allowable capital expensing amount, and how to transition out of the current small business deduction.

Allowance for Corporate Equity

A longer-term reform to make Canada more attractive for domestic and foreign investors alike would be an allowance for corporate equity (ACE) in computing taxable profits (Milligan 2014; Boadway and Tremblay 2014; Laurin and Robson 2012; Mirrlees et al. 2011). The purpose of an ACE – calculated by multiplying shareholders' equity by an appropriate nominal interest rate – is to exempt returns equal to the opportunity cost of equity financing from taxation, so that only profits above that rate of return attract tax.

Eliminating tax on normal profits would greatly reduce the METR on new business investment, restoring some of Canada's attractiveness relative to the United States, and reducing the appeal of alternative uses of saving such as lending the money to government or investing abroad. In addition, the ACE would reduce the asymmetry between the preferential tax treatment of debt- financed over equity-financed investments, achieving a goal similar to that attained by the US reform restricting the deductibility of interest expenses.

Immediate implementation of a 4 percent ACE without other reforms would likely reduce federal

.....

Table 3: Shadow Budget Assumptions and Projections	a		
	2017/18	2018/19	2019/20
	(\$	billions except as not	ed)
Economic Growth (percent)			
Real GDP growth	3.1	2.1	1.6
GDP inflation	2.4	1.8	1.8
Nominal GDP growth	5.5	4.0	3.4
Federal Revenues			
Taxes on incomes, payroll, consumption and other transactions	282.2	292.9	302.3
User fees and charges for government services and products ^b	13.7	13.9	14.1
Investment income ^c	14.8	16.3	16.9
Total Revenues	310.7	323.1	333.3
Federal Expenditures			
Direct program expenses	139.1	140.1	140.2
Transfers to persons and governments	165.8	172.1	178.8
Gross debt charges	24.2	26.6	28.7
Total Expenditures	329.1	338.8	347.7
Summary of Federal Revenue, Expenditure and Balance			
Taxes, fees, and other charges	295.9	306.8	316.4
Program spending and transfers	-304.9	-312.2	-319.0
Debt charges net of investment income	-9.4	-10.3	-11.8
Budgetary Balance	-18.4	-15.7	-14.4

Notes: Totals may not add due to rounding.

(a) Based on Fall Economic Statement (Canada 2017).

(b) Estimated figures including earnings of consolidated Crown corporations.

(c) Estimated figures including interest income, net income from enterprise Crown corporations, foreign exchange revenues, and other returns on investment.

Sources: Canada (2017); authors' calculations.

revenues substantially – by as much as \$12 billion a year – in the short term. Raising corporate income tax rates to replace lost revenue would encourage businesses to locate profitable activities outside Canada, so broadening the base of investment income subject to taxation would be a better way to offset some of the tax loss. Since higher after-tax returns with an ACE would produce higher dividends and capital gains for Canadian shareholders, adjustments in the capital- gains inclusion rate and the dividend tax credit could recoup about \$4 billion at the individual level.

Broadening the corporate income base by, for instance, reforming the small business tax deduction as suggested above, along with a proportional increase in the corporate capital-gains inclusion rate, would offset an additional \$4 to \$6 billion. Eliminating other tax provisions, such as accelerated capital cost allowances, which would no longer be necessary under an ACE system, would further offset the \$12 billion fiscal cost.

To provide time for the design and implementation of these offsetting measures, the ACE would phase in gradually, starting in 2019/20. This fiscal plan marks down revenue by \$500 million during the phase-in period. Longer-term, after taking into account its positive impact on investment and economic activity, the impact of the ACE on federal revenues would be negligible.

Greening Canada's Taxes

Canada has committed to greenhouse gas emissions 30 percent below 2005 levels by 2030. Many provinces have since put in place systems – capand-trade or "carbon taxes" – that discourage carbon-dioxide emissions. The federal government has recently set a price floor for a national "carbon" price starting in 2018. However, these measures are unlikely to depress economic activity enough, or reduce the CO²-emissions-intensity of Canada's economy by enough, to achieve the 2030 targets.

The bulk of greenhouse gas emissions results from consumer choices, and most governments

have, to date, been reluctant to steer those choices as forcefully as the greenhouse-gas targets require. This Shadow Budget sets a new course by proposing an increase in the Goods and Services Tax (GST) rate applied to transportation fuels. Raising the GST on transportation fuels is preferable to raising existing excise taxes because GST is only effectively paid on net value-added when goods and services are purchased by the final consumer. This feature protects Canada's international competitiveness and avoids the distortions that occur when taxes "cascade" on intermediate inputs bought and sold but not on internal firm transactions. Establishing a new GST rate of 10 percent on motive fuels, starting in the next fiscal year, would generate about \$2 billion in additional revenues that would help finance a return to budget balance in the medium term.

Rationalizing Taxes and Transfers

Scrutinizing Tax Preferences

The federal tax system contains many exemptions, deductions, rebates, deferrals and credits. Some of these preferences attempt to recognize differing capacity to pay among taxpayers; others are effectively spending programs in disguise (Laurin and Robson 2017). Among the items that fall in the category of spending programs in disguise are several that would struggle to pass muster if accounted for and voted on as part of annual spending programs because they subsidize activities that have small social benefits and/or already receive other types of fiscal support, or they distort investment.

For example, the age credit provides a tax subsidy to seniors who already benefit from a number of social transfers and in-kind benefits. The amount is already clawed back on incomes between about \$37,000 and \$86,000, which increases the marginal effective tax rates on these seniors. This Shadow Budget proposes to reduce the base amount for age credit to \$4,000, which is analogous to the amounts in most provinces. The tax credit for first-time home buyers is another problematic subsidy, given the disproportionate amount of Canada's capital investment that is flowing into residential construction (Robson 2017a) and the evidence that many younger and less well-off Canadians are financially overcommitted. This Shadow Budget proposes to phase it out.

Another preference that distorts saving and investment is the federal credit for investment in labour-sponsored venture capital corporations (LSVCC). Venture capital funding spurs innovation, but among the various types of venture capital funds in Canada, LSVCCs are among the least efficient in this respect (Fancy 2012). In addition, LSVCCs crowd out alternative private-venture investments and favour portfolios unsuitable for retail investors. For this reason, this Shadow Budget would eliminate the LSVCC federal credit.

More Generous Tax Treatment of Nondiscretionary Medical Expenses

While the non-taxation of employer-paid premiums for health and dental plans often features in discussions of tax preferences, it falls under the heading of tax provisions that recognize differences among taxpayers' capacity to pay. Many medical expenses are non-discretionary: people incur them because they are sick, and the income they need to cover them is not available for enjoyment.

When it comes to health-related expenses, Canada's personal income tax is not generous enough: the current medical expense tax credit only applies to expenses exceeding 3 percent of net income, or \$2,306, whichever is lower, and is calculated at the bottom tax rate. As a down payment on further reform, this Shadow Budget would lower the threshold on such expenses to 1.5 percent of net income, or \$1,150, whichever is lower. This change would help people who are buying healthcare directly, or paying high healthrelated insurance premiums not covered by their employers. Employer-paid health premiums would continue to be untaxed.

Levelling the Playing Field in the Digital Economy

The Internet is revolutionizing how people access entertainment, order taxis, find accommodations and shop for goods. In many cases, consumers can make purchases directly from a supplier located outside Canada just as easily as if the company were domestic.

Domestic providers of digital products and services must charge 5 percent to 15 percent GST/ HST on their sales. But foreign providers of like products and services are not obliged to collect and remit sales tax if they are not "carrying on business" in Canada. Instead, the consumers of the service are expected to account for and remit the taxes that should be paid on those items. But most consumers do not do this, and the impracticality of enforcement means significant amounts of potential tax revenues go uncollected. Since the sales tax is not getting paid, foreign digital providers have a competitive advantage over domestic companies. This imbalance affects a wide range of services, including video streaming, digital books, games and myriad fees for using digital platform and network services.

The reason foreign providers of digital services are not obligated to collect sales tax stems from the (lack of a) definition for "carrying on business" in the *Excise Tax Act*. If a business is "carrying on" and is not a small supplier, it must register for, collect and remit GST/HST. Canadian policy determines whether or not business is "carrying on" based on the location of the supplier. The tax advantage that foreign companies enjoy could be fixed by basing the obligation to register for GST/HST purposes on the location of consumers.

To address both problems, this Shadow Budget recommends amending the *Excise Tax Act* to apply to businesses that supply digital goods and services for consumption within Canada regardless of where the company is located, in compliance with International VAT/GST Guidelines. The main goal of the reform is to level the playing field for domestic and foreign providers of digital products and services in Canada by requiring that foreign sellers remit tax on sales in the jurisdiction where the final consumer is located. This measure is expected to increase annual revenue by about \$200 million annually.

Adjusting the Tax Treatment of Donations of Private Company Shares and Real Estate

For several years, voices in the charity community have been advocating for change to the regime by which private company shares and nonenvironmentally sensitive land may be donated to charity. No good tax policy reason justifies treating the donation of shares of publicly traded securities differently from privately held ones.

There is significant opportunity to unlock new types of financing for Canada's charitable sector by extending favourable tax treatment to the donation of private company shares and real estate. Past proposals to enact such favourable treatment created an entirely new mechanism to address concerns regarding proper valuation and other mischief. These proposals, however, created unintended consequences and were overly complex.

Instead, the government should use the current system for the donation of private company shares, as well as extending it to donations of real estate and simply amending the tax rate applicable to such transactions (Aptowitzer 2017). As in the case with donations of publicly traded shares, the capital gain would be excluded from income.

Accordingly, this Shadow Budget recommends amending the *Income Tax Act* to exclude the entire disposition from tax, in the case of privately held securities, and a partial exclusion for the disposition of real estate, when those assets are donated to charity.¹ The cost of this measure is likely to be small.

Eliminating Excise Tax on Aviation Gasoline and Jet Fuel

Aviation fuel taxes create a number of problems relative to value-added taxes such as the GST.

By taxing an intermediate input, these levies impose business expenses that have no fiscal offset, raising costs throughout the economy and making Canadian exports less competitive. They also induce airlines to fuel their aircraft where taxes are lower rather than minimize their fuel usage, which results in less efficient air transportation and environmental damage from excess fuel consumption.

This Shadow Budget would abolish federal aviation fuel excise taxes. Aviation fuel would be subject to the same higher GST rate that applies to other motive fuels, with rebates through the same invoice-credit system that relieves intermediate users of tax. The revenue cost of this change is about \$0.1 billion per year.

Canada: Open for Business

Overwhelming reliance on US trade exposes Canada to the ups and downs of American

¹ Since 1995, if the property is certified as ecological property by the minister of the environment, and the owner donates it to an acceptable environmental charity, the receipted amount is determined by the minister and there is no capital gains tax on the disposition of the property. In these circumstances, the total amount of the receipt is available to offset taxes from other sources. (Aptowitzer 2017). A partial exclusion for the disposition of real estate, as opposed to full exclusion, is recommended so as to maintain an incentive to donate environmentally sensitive land to charities dedicated to its conservation.

economic conditions and trade policies. There is a trade-off between the specialization gains derived from deep integration with a massive economy and the risk inherent in the lack of market diversification.

Emerging Markets for New Partnerships

Canada is at a crossroads in international trade policy. More than a quarter century of reducing tariffs and other barriers to trade, and adopting common rules about goods and services, most notably under the North American Free Trade Agreement (NAFTA), have tightly integrated Canadian and US production. The best outcomes of current negotiations with the United States and Mexico would be a modernized NAFTA that adopts improvements along the lines established by the Canada-EU Trade Agreement and the Transpacific Partnership, supplemented by bilateral agreements on matters such as facilitating passage for trusted goods and people at the border. This budget sets aside \$500 million annually in anticipation of compensation payments to Canadian producers of supply-managed agricultural products resulting from reduced barriers to imports of these products once the negotiations are complete.

Eliminating Tariffs

Tariffs on imports increase costs to Canadian consumers and businesses. Since tariffs are not applied evenly to countries or goods, they distort purchasing decisions. When a Canadian buyer chooses a good from a preferentially treated trade partner over a superior product affected by a tariff, Canadian businesses and consumers suffer. Rankings of Canada's openness to foreign products place us below counterparts such as the Scandinavian countries, Germany and the UK (World Economic Forum, 2016 – pillar 6 Competiveness index). At the moment, Canada pursues preferential treatment for our exports through bilateral negotiations. The benefits of this route are clear: we obtain lower tariffs for Canadian products abroad, in addition to lower costs for our businesses and consumers, by reducing our own tariffs in exchange. However, there is also potential for unilateral action that would result in economic benefits.

Research shows that if Canada eliminated all tariffs, it would spur output gains of about 1 percent of GDP. Furthermore, tariff elimination would have a greater effect on output growth than any other major preferential trade agreement would have (Ciuriak and Xiao 2014). Accordingly, this Shadow Budget envisages the gradual elimination of all tariffs. Over time, the unilateral elimination of import tariffs represents more than \$5 billion annually in forgone revenue but is offset by administrative cost savings and revenue associated with output gains of approximately 1 percent of GDP for a net fiscal cost of about \$2 billion, or less if we are able to achieve this tariff reduction mutually with our trading partners.

Raising the de minimis Threshold on Imports

The *de minimis* threshold (DMT) is the maximum value of an imported good sent to a person by mail or courier that is exempt from HST/GST or custom duties. Canada's DMT of \$20 has not been changed in decades, even to account for inflation, and is lower than any other industrialized country.

A very large increase in the DMT – say, to a level equivalent to the US\$ 800 that the United States allows its returning travelers – risks putting Canadian retailers near the border at a competitive disadvantage. A smaller increase poses less of a threat, and notwithstanding some revenue-loss implications, would yield important cost savings in brokerage fees, import delays and administrative costs for government, consumers and businesses. The effects of increasing the DMT are positive for consumers and businesses, particularly small- and medium-sized businesses, because the cost savings for smaller entities is disproportionately large (McDaniel, Schropp and Latipov 2016).

Accordingly, this Shadow Budget proposes to increase the DMT from \$20 to \$100. This increase would save the federal government \$190 million in administrative costs. In the light of this Shadow Budget's proposal to eliminate all tariffs, the revenue impact of this measure would be limited to the GST portion, or about \$20 million. It therefore would yield a \$170-million net improvement in the federal budget balance.

A New Framework for Infrastructure Investment

Infrastructure investment has figured strongly in this government's commitments. In principle, public infrastructure can yield economic benefits that outweigh the tax-related costs of financing the project and paying associated interest. Transportation and telecommunication infrastructure, for example, facilitates exchanging goods, services and ideas, and job matching. In the short run, infrastructure investment can also boost demand and stimulate output. Resulting economic opportunities and welfare gains can surpass the dollar costs of purchasing and debt financing, even allowing for the additional costs that tax distortions impose.

Prioritizing Core Federal Investments

The uncertain economic outlook at the time of the 2015 election created pressure to announce very large numbers for infrastructure spending, with implied ambitious timelines. These timelines have not been realized, however.² Indeed, the Parliamentary Budget Officer (PBO 2017) observed that roughly half of committed infrastructure money was not spent as planned in 2016/17. Large greenfield projects require extensive planning and assessment of their economic and environmental benefits and costs – and the government's recently introduced new *Impact Assessment Act* will likely add further delay and uncertainty to major projects. A further complication is the prevalence of projects that require coordination with other levels of government, which also have processes to follow, and have separate accountability to their own taxpayers and users of infrastructure.

Accordingly, this Shadow Budget prioritizes direct funding for projects that fall under federal government control and can move relatively quickly. This Shadow Budget would devote fresh infrastructure spending to federal projects where the national interest makes government involvement uniquely appropriate – such as investments in marine, rail and air-transportation infrastructure.

Expensed over the useful life of such assets generally 20 years to 40 years – a new annually recurring \$0.2 billion expense can easily support the amortization and maintenance of new capital infrastructure projects whose initial construction costs would exceed \$4 billion over the next two fiscal years. A partial re-profiling of already budgeted phase-2 infrastructure funding originally purported to deliver \$4billion in 2018/19 in infrastructure grants to provincial, territorial and local governments, rising to an implausible \$11 billion in 2027/28 (for a total of \$81 billion from 2017 to 2027) – can support federal capital investments and reduce by almost half the amounts budgeted for infrastructure funding over the projection period.

2 Investments in capital assets owned and operated by the federal government – for example, infrastructure on reserves, ports, harbours, ferries, park lands, office buildings, federal bridges and roads – do not create large annual spending. The value of new or improved infrastructure is an asset, offsetting the associated debt. Amortizing the costs of such projects over the period they yield their services adds annual spending that is equal only to the amount written off each year.

Disposing of Non-Core Assets

A key complement to investment in new assets is regular examination of old assets that may not make sense to keep under federal government ownership – for example, airport authorities.

During the 1990s and early 2000s, the federal government transferred the operation of airports designated nationally significant to non-profit, nonshare-capital corporations. In return for receiving these assets, the authorities pay rent on ground leases. Pricing the cost of airports to travelers makes sense. But the base for these rents is total airport revenues rather than profits or revenue from flights specifically, which discourages airports from developing other sources of income such as retail.

Also, the airport authorities' non- sharecapital structure impedes their ability to operate and finance new infrastructure. Because airport authorities often enter into multi-decade agreements with tenants and bondholders, the looming ends of leases require the federal government to address the future of these airports.

Accordingly, this Shadow Budget initiates an auction of airport leases, in the order in which the lease terms expire – starting with Vancouver and Calgary in 2018/19, followed by Montreal and Edmonton in 2019/20. The resulting revenue would be capital, not operating income. While it would not affect annual balances directly, retiring debt with the proceeds would reduce federal interest costs in future years.³

Modernizing Canada Port Authorities to Involve Private Capital

Canada Port Authorities (CPAs) oversee Canada's

largest ports. Owned by the federal government, they operate at arm's length from it, facilitating marine trade: they manage the leases of different terminal operators, provide common safety and navigation services, and permit new construction.

They are also valuable assets that generate significant revenues. The federal government is considering involving private capital in the ownership of Canada's largest ports. The potential equity value ranges from \$2.6 to \$3.4 billion. Due to the competitive landscape facing ports, port users are unlikely to see significant changes in pricing and customer experience if the federal government chooses to involve private capital. Henceforth, the federal government will oblige CPAs to rely on private capital to finance expansion, which will result in initially small but rising savings in the years ahead.

Modernizing Rules and Institutions

Reliable labour market information helps job seekers as well as people already employed to connect with employers who want their skills.

Improving Labour Market Information

It is almost a decade since the 2009 release of the report of the Advisory Panel on Labour Market Information, established by the Forum of Labour Market Ministers. A high priority identified by the panel was addressing data gaps with respect to vacancy rates, employment figures, Aboriginal peoples, immigrants and educational data.

Since then, some advances have occurred. In 2015, Statistics Canada launched its Job Vacancy and Wage Survey, providing valuable information

3 The estimated potential proceeds from selling equity stakes in airports (after accounting for debt repayment) are between \$7.2 billion and \$16.6 billion (Robins 2017).

on in-demand occupations, job openings, the duration of job vacancies, average pay and educational requirements.

Other data gaps, however, remain as problematic as they were a decade ago. The Labour Force Survey still does not cover the on-reserve Indigenous population. Lack of linkage between graduates' information and administrative employment databases hamper learning about transitions from education to work. A survey asking potential employers about the characteristics they seek would also be useful.

This Shadow Budget proposes an additional \$25 million annually to support the implementation of the Advisory Panel's recommendations to address continuing gaps in labour market information and expand existing surveys where necessary.

Updating Crown Lenders' Mandates

Three federal Crown corporations operate in the financial sector: the Business Development Bank of Canada, Export Development Canada and Farm Credit Canada. Government lending may make sense when private lenders cannot price properly or diversify against certain risks – but if it extends beyond the types and amounts clearly justified by private market failures, it distorts credit allocation and exposes taxpayers to losses.⁴

All Crown financial corporations will henceforth be required to provide a clear statement of their complementary role to private institutions in their annual reports, including comparisons of interest rates on current lending with those of private loans such as the prime rate.

Farm Credit Canada is an extraordinary case: it has no legislative requirement to complement

private lenders, and, in practice, competes straightforwardly with them. The government will introduce legislation to amend the *Farm Credit Canada Act* to ensure that the Crown corporation complements private lenders, and ensure that the *Act* undergoes the same five-year review that applies to the other financial Crowns.

Reform of Mortgage Insurance and the CMHC

The Canada Mortgage and Housing Corporation (CMHC) is also unusual, in that it serves two markedly different purposes: backstopping mortgage lending, and spending directly on affordable housing.

Its activities in, and influence on, the mortgage market in Canada have drawn scrutiny: a recent analysis by Koeppl and MacGee (2015) indicates that a low-probability housing crisis could cost the federal government up to \$9 billion to recapitalize mortgage insurers. In October 2016, the federal government launched consultations on a new proposed risk-sharing framework for mortgage losses between lenders and mortgage insurers. Conversations on a potential framework have revealed problems with deductibles - covering losses only after an initial amount – because fear of losing even a small amount could cause runs on insurers in the event of a market downturn. A superior mechanism to increase the amount of skin private lenders have in the game is risk-based premiums for mortgage coverage.

Accordingly, this Shadow Budget proposes a standalone fund – available only for the residential ownership market – to insure against a severe housing downturn up to a target level and with the capacity to borrow against future revenue if needed,

⁴ Crown lenders operate to greater or lesser degrees on commercial principles: they receive no ongoing financial subsidies and pay dividends to the government, their owner. But their ability to tap taxpayers in the event of losses without compensating taxpayers for the associated risks makes their cost of artificially low. Moreover, they pay no corporate income tax. For more on these distortions, see Bergevin and Poschmann (2013).

as proposed by Koeppl and MacGee (2015). The Financial Institutions Supervisory Committee, which oversees all federally regulated financial institutions, would oversee the emergency fund's pricing and reserve policies. This backstop would be primarily financed by market participants through risk-adjusted premiums. It has no significant fiscal implications.

Channeling funding for affordable housing through the same Crown Corporation that backstops mortgage lending makes little sense: while some synergies related to general knowledge of the building, maintenance and stock of housing may exist, the complicated fiduciary duties facing the board and management of such a dual-purpose entity are problematic for governance, and the CMHC's role as a conduit for taxpayer's money dilutes accountability for the effectiveness of affordable housing programs. Accordingly, the government will introduce legislation to create a separate Canada Mortgage Corporation, with appropriations to subsidize housing directly flowing through a new federal Ministry of Housing. This change has no fiscal implications

Supporting Quality Elementary and Secondary Education

Elementary and secondary education in Canada is largely a provincial responsibility. The federal government nevertheless plays a key role by supporting the benchmarking of student achievement across the country and internationally, thus promoting better curriculums and delivery. This Shadow Budget proposes measures to enhance these federal roles.

At the national level, the Pan-Canadian Assessment Program evaluates performance in reading, writing, mathematics and science across the country. Its value in assessing progress, grade by grade, would be greater, however, if it measured performance at each grade level, rather than, as currently, at levels three grades apart. Annual assessments would also shorten the cycle for special emphasis on specific areas, improving Canadians' ability to spot changes and respond to them.

At the international level, the Program for International Student Assessment benchmarks the performance of Canadian students against their peers abroad. Canada supports additional participation in this program to allow for interprovincial evaluation, in addition to comparison to other countries. This expansion has yielded insights into education performance at the provincial level that, for example, pointed to those provinces particularly responsible for the declines in Canada's mathematics scores since 2003. It also showed which provinces' lagging performance were hidden by the stability of countrywide reading and science scores over time.

The Shadow Budget would augment funding for the above two student performance assessment programs over the next five fiscal years. The estimated cost of this measure is small.

Better Fiscal Accountability with an Improved Estimates Process

Parliamentary scrutiny and control of the federal government's spending is weaker than it could be. In many provincial governments, the estimates that legislators vote to authorize specific spending are presented simultaneously with the budget, and are on an accounting basis that matches the budget, which lets legislators see how their notes match – or not – the overall fiscal plan presented in the budget. The federal government does neither of these things. The federal government's Estimates are typically presented after the budget, and often after the fiscal year has begun. And the Estimates are on a cash basis of accounting, aggregated in ways that make it impossible for legislators to reconcile what they are voting with the fiscal plan.⁵

In the 2016 Fall Economic Update, this government announced that it would "present cash and accrual accounting reconciliation tables" in the estimates so that "Parliamentarians and Canadians can better understand federal government spending."

The change has yet to occur. Estimates reconcilable with PSAB-consistent accounting, released at the same time as a timely budget, would fix this problem. The government therefore commits to releasing its Main Estimates for the 2019/20 fiscal year simultaneously with the 2019 federal Budget in February of that year, and to present them on the same Public Sector Accounting Standards that apply to the Budget itself and to the federal Public Accounts.

Table 4 summarizes the fiscal impact of these measures to promote inclusive innovative growth.

ACHIEVING FISCAL SUSTAINABILITY

The Shadow Budget also supports fiscal sustainability through prudent restriction of federal expenses, the exploration of new revenue streams and improving accountability of government finances. Federal costs can be contained by ensuring federal transfers to the provinces remain sustainable and by reforming federal employeecompensation arrangements. Sustainability can be ensured by providing a more accurate picture of the government's financial position, introducing new revenue tools and limiting exposure to contingent mortgage-insurance liabilities.

Joint Federal-Provincial Cannabis Taxation

Later this year, for the first time in nearly a century, it

will be legal to sell, distribute, purchase and consume cannabis for recreational purposes. Cannabis is the most commonly used illegal drug in Canada with market demand in 2017 estimated to be about 773 tonnes or \$5.7 billion (Centre for Addiction and Mental Health 2012; Statistics Canada).

From the date of legalization, both recreational and medicinal marijuana will be subject to excise tax and GST/HST. The provinces and federal government have agreed to a coordinated excise tax framework where cannabis is taxed at a rate of \$1.00 per gram or 10 percent, whichever is higher. The federal government will receive 25 percent of this excise tax revenue up to \$100 million. There is considerable uncertainty about post-legalization prices in both the legal and illegal market. Differing provincial tax rates and retail models increase this uncertainty. Assuming that legal marijuana retail is competitively convenient with the black market and prices remain stable, legal marijuana retail would be about \$2.3 to \$5.3 billion in 2018. Combined federal excise and sales tax revenues from marijuana retail would be about \$250 to \$370 million in extra revenues. This Shadow Budget presumes that legalization will occurs on July 1st, 2018, and anticipates \$200 million in the 2018/19 fiscal year from excise and sales tax on cannabis, rising to \$300 million in 2019/20 and growing with legal consumption thereafter.

Containing Federal Employment Costs

Operating costs make up about 30 percent of federal program expenses, with about 60 percent of that amount – more than \$50 billion annually – going to employee compensation. That price tag has two parts. One is what people usually think of as compensation: wages and salaries, health and dental

⁵ Former Parliamentary Budget Officer Kevin Page, former MP Pat Martin and public accounting expert Bob Plamondon have written: "You cannot add up department spending plans and get to budget totals. It is well-nigh impossible for mere mortals to follow money."

.....

Initiatives	2018/19	2019/20	
Imitatives	(\$ billions)		
Competitive Business Taxation for the 21st Century			
Faster Expensing of Capital Investments	S	S	
A Better Way to Support Young, Growing Businesses	n/a	n/a	
Rationalizing Taaxes and Transfers			
Allowance for Corporate Equity		-0.5	
Scrutinizing Tax Preferences	2.0	2.0	
More Generous Tax Treatment of Nondiscretionary Medical Expenses	-0.4	-0.4	
Greening Canada's Taxes	2.0	2.0	
Levelling the Playing Field in the Digital Economy	0.2	0.2	
Adjusting the Tax Treatment of Donations of Private Company Shares and Real Estate	S	S	
Eliminating Excise Tax on Aviation Gasoline and Jet Fuel	-0.1	-0.1	
Canada: Open for Business			
Emerging Markets for New Partnerships	-0.5	-0.5	
Eliminating Tariffs	-0.5	-1.0	
Raising the de minimis Threshold on Imports	0.2	0.2	
A New Framework for Infrastructure Investment			
Prioritizing Federal Infrasructure/Partial Reprofiling of Funding	1.8	2.2	
Disposing of Non-Core Assets	n/a	n/a	
Modernizing Canada Port Authorities to Involve Private Capital	S	S	
Modernizing Rules and Institutions			
Improving Labour Market Information	S	S	
Updating Crown Lenders' Mandate	n/a	n/a	
Reform of Mortgage Insurance and the CMHC	S	S	
Supporting Quality Elementary and Secondary Education	S	S	
Better Fiscal Accountability with an Improved Estimates Process	na	na	
Total	4.7	4.1	

Table 4: Inclusive Innovative Economic Growth: Summary of Shadow Budget Initiatives' Impact on Budget Balance (2018/19 and 2019/20)

.....

benefits, pension and social security contributions. The other is less front-of-mind, but has been rising dramatically over time: non-payroll expenses for deferred compensation such as pensions – the value of future payments, plus new benefits earned during the year – which accumulate as unfunded liabilities.

Wages, Salaries and Other Payroll Contributions

A Treasury Board Secretariat review of federal government compensation released in November 2006 found that federal employee compensation was higher than private-sector benchmarks when pension benefits are considered. In a subsequent article, the author of the Treasury Board review, while acknowledging the difficulties of making effective comparisons between federal public-sector and private-sector jobs, noted that a total compensation premium in the order of 15 percent to 20 percent on average seemed reasonable (Lahey 2011).

What has happened since then? Comparing total compensation per hour worked in federal government service jobs (excluding defense) and private-sector service jobs in fields requiring relatively advanced qualifications, we find that – at \$63 per hour – average total compensation in the federal government is still higher than in privatesector professional, scientific and technical service jobs (\$40 per hour) or in finance and insurance jobs (\$48 per hour). This margin is about the same as that prevailing at the time of the Treasury Board review: if compensation of federal employees was ahead of its private-sector benchmarks in the early 2000s, it still is.

Unfunded Future Benefits

Such comparisons do not include non-payroll items related to the cost of unfunded future benefits offered to employees, including disability plans for veterans and police officers, future health and dental care for federal employees, provisions for severance and sick leave accumulation and the gradual recognition of the rising value of accrued pension and other future benefits. These costs have proved much harder to control and have increased dramatically since the mid-2000s. A key driver of this increase is declining rates of investment return, which make a given future payment more expensive to fund.

Worse, the cost of employee pension benefits earned in a given year, as shown by the federal government in its financial statements, understates the true value of these commitments as well as their true cost to taxpayers. Ottawa's pension guarantees for its employees are part of the federal government's debt - indeed, they closely resemble federal real-return (inflation-indexed) bonds (RRBs). Someone not in a federal pension plan would need to fund a similar retirement – or, alternatively, to hedge against his or her liability for federal pensions as a taxpayer – by investing in the federal government's RRBs (Laurin and Robson 2017). At the end of 2016/17, the yield on these bonds was 0.68 percent, reflecting the extraordinarily low yields lenders are willing to accept for relatively high-quality credit.

Unlike private-sector pension plan sponsors, however, the federal government values its accrued pension obligations by using arbitrary discount rates that average around 2.6 percent in real terms. As Hamilton (2014) points out, this means that taxpayers are guaranteeing plan participants longterm real rates of return of around 3 percent – a guarantee that has enormous value, yet does not appear in the federal government's statement of operations or debt. Valued at the RRB rate, the per-employee cost recorded for government pension contributions in 2016/17 would be more than triple what appears in the Public Accounts.

Ensuring Competitive Employee Compensation

The standard argument for giving federal employees generous pension benefits is that public pressure constrains what Ottawa can pay in current compensation, and it therefore must provide outsize deferred compensation to prevent its employees leaving for the private sector.

But the federal government suffers insignificant attrition – the typical career path of a federal employee is to stay until (comparatively early) retirement. If total federal compensation, including pension plans, were aligned to a competitive labour market, we would expect to see some departures for the private sector. In that event, the government would respond to particular pressures in particular areas with targeted compensation adjustments, rather than maintaining across-the-board premiums.

Furthermore, the right response to public pressure for low employee compensation is not to provide additional hidden compensation, but to make a public case for good compensation for valuable employees. The argument that Canada needs able people doing important federal government jobs is not hard to make; the case that federal employees across the board should receive benefits far richer than most taxpayers enjoy, and that taxpayers cannot see, is very hard to make.

The recommendations flowing from this investigation are straightforward. First, the federal government should recognize the full value of its employees' deferred benefits using actual, not invented, discount rates. Second, it should ensure that the total value of its compensation is competitive with outside alternatives, understanding that some employees will depart even if they have the "right" level of compensation. In doing so, imposing prolonged periods of departmental operating budget freezes, as occurred in the early 2010s, is one of the most likely methods to succeed at restoring the overall balance between federal public and private-sector compensation with the least possible disruptions of essential public services (Lahey 2011). Implementing this measure results in expected cost savings of at least \$0.8 billion in 2018/19 and \$1.7 billion in 2019/20.

Finally, in managing total compensation costs, the government should transition its pension plans to shared-risk plans in which taxpayers do not bear all the risks related to the future cost of these benefits and in which a joint governance structure gives employee representatives a stake in the long term sustainability of the plans.

Improving Long-Term Sustainability and Transparency in Federal Finances

The challenge of slow economic growth is a longterm one. Absent fresh measures to encourage work, investment and productivity, slower economic growth will severely limit Canadians' opportunities to increase their living standards and governments' ability to fund programs and repay debts. This Shadow Budget would commit to a realistic timetable for a balanced budget, hold the line on provincial transfers, improve transparency with respect to future employee pension liabilities and minimize financial risks in the catastrophic and mortgage insurance industries.

A Clear Timeline for Balancing the Budget

In the continuing environment of low growth, both domestically and internationally, governments cannot depend on quickly increasing future tax revenue to finance spending commitments. To ensure balance between needed program spending and long-term fiscal sustainability, this Shadow Budget establishes a clear fiscal anchor: a firm commitment to balance the books by the end of 2023.

An anchor provides clear parameters to frame the government's priorities, and helps Canadians hold the government to account. Targeting a steady debt-to-GDP ratio does not do this: GDP is not something the government can control, so the number will drift on its own, making it an ineffective bulwark against demands for increased spending. In the medium term, a clear timetable for balancing the budget would give businesses and households greater confidence in the larger picture. This assurance should also improve the response to fiscal stimulus in the event of an economic downturn, since it would mitigate potential fears of higher future taxes and borrowing costs (Scarth 2014). A lack of trust in the fiscal framework may hurt business confidence and, thus, curtail private investments more than encouraging them.

More Meaningful Reporting of Employee Pension Obligations

The federal debt is a key figure for assessing federal fiscal policy. It is a main indicator of financial health for credit rating agencies, and successive federal governments have set long-term goals for its level as a percentage of GDP. Other than market-traded debt securities, however, the values of all other liability components are only best estimates subject to accounting standards. One of those critical best estimates is the present value of Ottawa's future obligations for employee pensions.

As elaborated above with respect to federal pensions, low yields and correspondingly low discount rates on liabilities make a given future payment more expensive to fund. The Public Accounts show Ottawa's obligation for employee pensions – net of the assets that have accumulated since these plans began operating on a partially funded basis in 2000 – at \$150 billion at the end of fiscal 2016/17. But a market-based valuation yields a deficit of \$246 billion at that date.⁶ This restatement increases the total value of federal liabilities – and the federal debt – by \$96 billion, a significant amount. Accurately reporting the fair value of federal pensions to their recipients and their cost to taxpayers in the Public Accounts would provide a useful supplement to existing information about the federal government's financial position.

Holding the Line on Provincial Transfers

Over the past 10 years, federal transfers to provincial, territorial and local governments have grown faster than the economy as well as faster than the revenues of either the federal or other governments. The growing reliance of most provincial budgets on federal transfers (Figure 1) reinforces a dangerous tendency for provinces to see Ottawa as the answer to their fiscal challenges. Provincial governments, however, have access to essentially the same revenue sources as Ottawa.

This reliance on federal financial support diverts provincial time and energy from improving services toward lobbying for even larger transfers (Robson and Laurin 2015). The more federal transfers respond to provincial demands, the weaker their incentives for effective fiscal management and the stronger their incentives to blame Ottawa for shortcomings in their programs.

This Shadow Budget, therefore, proposes that federal-provincial transfers increase only in line with economic growth and federal revenues. Reductions in federal income-tax rates, outlined below, will reverse the recent vicious circle whereby tax increases by one level of government shrink the tax base, and therefore revenues, for the other: as the lower federal rates foster increases in provincial tax bases, provinces will see their own revenues rise, reducing their need for federal transfers. Canadians need each level of government to steward its own finances well, rather than budgeting less rigorously in the hope of a bailout from another level. One positive example of holding the line is the Canada Health Transfer. It will

⁶ This calculation is based on the 0.68 percent RRB rate at the end of 2016/17. More details on the calculation methods can be found in Robson and Laurin (2016) and prior annual updates in this series.

Balance (2018/19 and 2019/20)		
Initiatives	2018/19	2019/20
Initiatives	(\$ bil	llions)
Joint Federal-Provincial Cannabis Taxation	0.2	0.3
Containing Federal Employment Costs	0.8	1.7
Improving Long-term Sustainability and Transparency in Federal Finances		
A Clear Timeline for Balancing the Budget	n/a	n/a
More Meaningful Reporting of Employee Pension Obligations	n/a	n/a
Holding the Line on Provincial Transfers	n/a	n/a
Ensuring Insurers Can Withstand Catastrophes	S	S
Total	1.0	2.0

Table 5: Achieving Fiscal Sustainability: Summary of Shadow Budget Initiatives' Impact on Budget Balance (2018/19 and 2019/20)

Notes: n/a = not applicable; s = cost is small or negligible.

Sources: Authors' calculations.

continue rising at the greater of GDP growth or 3 percent – notwithstanding already signed bilateral health agreements with provinces for home care and mental health – rather than returning to the previous, unsustainable 6 percent growth rate (Clark and DeVries 2016).

Ensuring Insurers Can Withstand Catastrophes

Since the 2008 financial crisis, policymakers have focused on addressing areas of systemic risk in the financial and economic systems. These interventions have generally focused on the banking system. But major risks also face property and casualty insurers.

While the systemic risk posed by general property and casualty insurers is generally low, a catastrophic event in which insurable losses exceed \$30 billion would overload the industry and exceed the Property and Casualty Insurance Compensation Corporation's (PACICC) ability to meet policyholder claims (Kelly and Stodolak 2013). In such a case, PACICC must assess surviving insurance companies to fill consumer

claims, adding to the strain on already strained companies and exacerbating the systemic risk. This Shadow Budget proposes to implement a federal emergency backstop arrangement for property and casualty insurers to minimize the systemic impact that a catastrophic natural disaster would have on the economy. This last-resort guarantee would kick in beyond an industry-wide trigger of expected losses. For example, it would protect against those high-risk events, such as a one-in-500-year catastrophic earthquake, which would result in damages currently estimated at \$30 billion to \$35 billion. As part of such a reform package, PACICC would be bolstered to deal with potential insurance industry failures while reducing the likelihood that a federal financial commitment would be required and, if triggered, reduce its costs (Le Pan 2016). Accordingly, the Shadow Budget would allocate appropriate funds to the Office of the Superintendent of Financial Institutions, in collaboration with PACICC, to determine the proper risk-sharing arrangement that balances

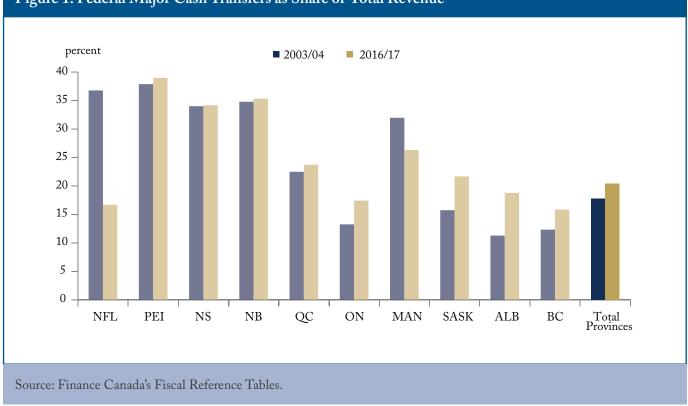


Figure 1: Federal Major Cash Transfers as Share of Total Revenue

mitigation of risk with addressing moral hazard issues. The cost of this initiative is small.

Table 5 summarizes the fiscal impact of these measures to promote fiscal sustainability.

IMPROVING OPPORTUNITIES FOR CANADIANS

The Shadow Budget would promote mobility of workers in two ways, internationally by improving our capacity to attract and retain top talents and domestically through equalizing regional access to employment insurance benefits. It would also create the conditions for greater financial stability for our seniors, now and in the future. Domestically, the right conditions must be in place to encourage workers to move to where they are needed and job prospects are brighter. There are several measures governments can take to help make this happen.

Reducing Punitive Personal Income Tax Rates

Since 2010, provincial governments have tended to raise the tax rate on higher-income earners as they seek new revenues and respond to populist pressure. Currently, with the recent four percentagepoint federal hike on taxable income above \$200,000, the combined federal/provincial top tax rate in 2017 approaches 50 percent in the three western provinces and surpasses it in the other seven, including Ontario (54 percent), Quebec (53 percent) and Nova Scotia (54 percent). The rate in New Brunswick is also 53 percent, but would have been almost 60 percent if the province had not reversed a previous larger hike on high earners.

In the short term, high-income taxpayers respond to tax-rate increases by trying to realize their income in different forms, at different times and in different jurisdictions. These responses shrink the tax base and reduce tax receipts – a key reason for New Brunswick's decision not to maintain its higher rate (Laurin 2015). In the long run, as well, the economic damage of the high-earner tax rate hike will be felt through less entrepreneurial activity and private investment. Recent tax reform in the US heightens the urgency of having competitive Canadian rates. Excessively taxing the talent that fuels a more innovative, creative and successful economy is ultimately self-defeating. Responding to these concerns, the Quebec Taxation Review Committee in March 2015 recommended that the maximum federal/provincial tax rate should not exceed 50 percent (Quebec 2015).

Also recognizing these risks, this Shadow Budget proposes to reduce the number of people subject to the highest tax rate by doubling the threshold at which it applies from the current \$205,842 to \$411,684. The net cost to the federal budget would be around \$364 million annually in the short term after accounting for taxpayers' behavioural response and positive economic impacts. Such positive impacts would expand the taxable revenue base, yielding a tax-revenue dividend for provincial governments of around \$767 million - greater than the federal cost by around \$300 million.⁷ While helping Canada to remain competitive and fiscally attractive for the world's best talents, the resulting provincial tax-revenue windfall will provide timely help for provinces, and relieve provincial pressures for increasing federal transfers.

Investments in Education for Indigenous Children

Indigenous Canadians, especially those on reserve, tend to complete secondary education at much lower rates than other Canadians. In Budget 2016, the Government proposed \$2.6 billion over five years to support on-reserve primary and secondary education programs and infrastructure. This Shadow Budget proposes substantial increases in funding for on-reserve schools.

Indigenous students on reserves do not benefit from measures of achievement that benchmark performance, and spur improvement in most provincial schools. Therefore, this Shadow Budget proposes to fund the PCAP and PISA assessments for on-reserve schools and offer additional bonuses for those schools that choose to have students participate in sufficient numbers to benchmark their performance. Related spending will amount to some \$200 million annually – funds that can help on-reserve Canadians receive educations as good as those available to their peers off-reserve, and their counterparts abroad.

Fairer Treatment of the Unemployed across the Country

Currently, regional differences in the employment insurance (EI) program encourage dependency for many workers and discourage migration to areas where job prospects are brighter (Busby, Laurin and Gray 2009). Longer benefit payout periods in areas with higher unemployment hurt the economy by subsidizing industries and regions where the prospects for long-term, stable jobs are relatively poor. This Shadow Budget proposes to phase out EI's regionally differentiated entrance requirements and benefit periods. The resulting coast-to-coast uniform requirements would be tied to the national unemployment rate, providing a countercyclical income stabilization element to the program. In the short term, the desirability of accelerating EI access for workers in regions where past low unemployment rates impede access justifies easing the stringent requirements ahead of tightening the looser ones. To cover these transitional costs,

⁷ This estimate uses the same methods as described in Laurin (2015); i.e., the median taxpayer response-elasticity coefficient of 0.62.

the Shadow Budget includes \$0.5 billion in fiscal 2018/19 and \$0.5 billion in 2019/20.

Enhancing Financial Security for Canadian Seniors

Revising Tax Rules to Accommodate Target-Benefit Pension Plans

Policymakers' interest in target-benefit pension plans (TBPs) has increased with the recognition that sharing risks related to retirement income between employers and employees fosters more durable pension plans than requiring either side to bear disproportionate burdens in plans whose benefit commitments depend, at least to some degree, on their funded status. TBPs are already common in a multi-employer environment, and Canadian policymakers and regulators are updating their pension laws and standards to accommodate single-employer TBPs (Steele et al. 2014). It is time for federal tax rules to do the same.

This Shadow Budget proposes new tax rules to accommodate single-employer TBPs, whether new or conversions from existing defined-benefit (DB) and defined-contribution (DC) plans. The tax rules for TBPs would provide a default approach for TBPs functioning more like DB plans, while an alternative approach would accommodate TBPs functioning more like DC plans (Gros et al. 2015). These adjustments would provide valuable certainty for employers and employees seeking more durable pension arrangements. The fiscal impact of this measure is negligible.

Levelling the Field for Savers in Group RRSPs

The majority of Canadians, and the vast majority who work in the private sector, do most of their retirement saving in RRSPs. Many employers support this saving by organizing group RRSPs, and many match at least part of their employees' contributions. Approximately 1.5 million Canadians participate in an employer-sponsored group RRSP. DC pension plans and pooled registered pension plans help their participants prepare for retirement by allowing sponsors to deduct some administrative expenses from outside income. By contrast, participants in group RRSPs pay these expenses from plan assets, which reduces their ability to accumulate tax-deferred retirement wealth.

This Shadow Budget proposes to let group RRSP sponsors and/or participants deduct some administrative expenses, currently levied against plan assets, from outside income. Since employers' contributions to employees' accounts are more likely to be locked in, and are more like pension plan contributions than money employees might withdraw before retirement, the Shadow Budget also proposes to relieve employers' contributions to group RRSPs from payroll tax (Robson 2010). These changes would have little effect on federal revenue during the projection period.

Increasing Age Limits for Tax-Deferred Saving

Life expectancy in Canada has been rising more than two years per decade since the 1960s, but current age limits related to retirement do not reflect this change. Canadians (and their employers) now must stop contributing to tax-deferred retirement saving plans at age 71, which is also the age at which contributors must start drawing down their wealth. The Shadow Budget would increase the age at which contributions to taxdeferred retirement saving schemes must end to 72 on January 1, 2019. For every six months after that date, we propose adjusting the contribution time frame by one month. Among other advantages, this change should encourage older Canadians to stay in the workforce longer.

Raising Age of Eligibility for Public Pension Benef its

Canada's old-age dependency ratio is rising rapidly because low fertility rates, rising life expectancies and the aging of the baby boom. This will strain the sustainability of our public pension systems and

The a	2018/19	2019/20	
Initiatives	(\$ billions)		
Reducing Punitive Personal Income Tax Rates	-0.4	-0.4	
Investments in Education for Indigenous Children	-0.2	-0.2	
Fairer Treatment of the Unemployed across the Country	-0.5	-0.5	
Enhancing Financial Security for Canadian Seniors			
Revising Tax Rules to Accommodate Target-Benefit Pension Plans	n/a	n/a	
Levelling the Field for Savers in Group RRSPs	S	S	
Increasing Age Limits for Tax-Deferred Savings	S	S	
Raising the Age of Eligibility for Public Pension Benefits	n/a	n/a	
Increase Tax-Defered Saving Limits	S	S	
Eliminating Mandatory Drawdowns from RRIFs	S	S	
Extending Pre-Age-65 Eligibility for Pension Credit and Income Splitting	-0.1	-0.1	
Total	-1.2	-1.2	

Table 6: Improving Opportunities for Canadians: Summary of Shadow Budget Initiatives' Impact on Budget Balance (2018/19 and 2019/20)

healthcare. Other countries with aging populations, including Finland, Sweden, Norway, Poland and the United Kingdom, are raising the age of eligibility for social security benefits.

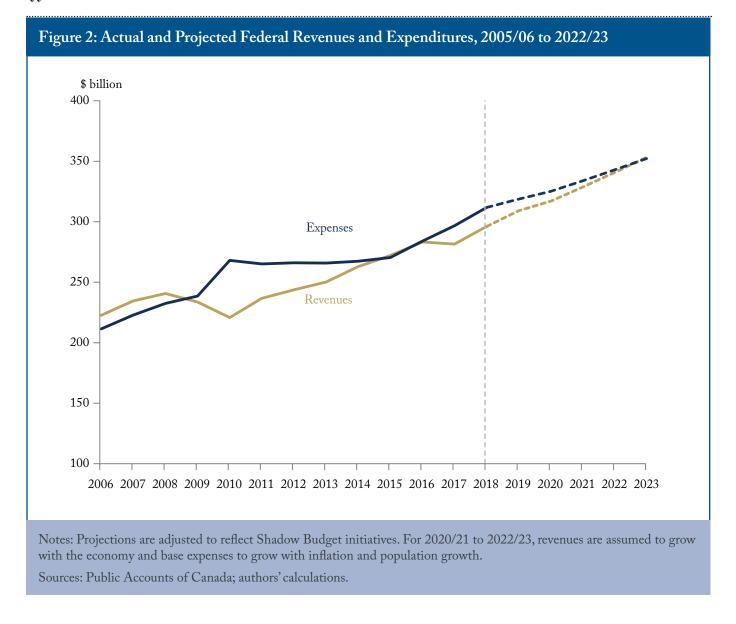
Inspired by a proposal in the UK, Brown and Aris (2017) propose to base Canadian age of eligibility for the CPP and OAS on projections that would aim to calibrate the age of eligibility to ensure that a constant proportion of the average person's adult life is spent in retirement. As life expectancy rises, so would the normal age of eligibility. For Canadian demographics, that constant proportion is 34 percent, which would trigger an increase in the age of eligibility from 65 to 66 in 2025, phased in from the beginning of 2023.

Both the CPP and OAS provide flexibility in the commencement of benefits, with an actuarial

adjustment that rewards later commencement with higher payments. Future changes in the age of eligibility will also trigger changes in the range of ages over which people can choose to commence their benefits. This flexibility will ensure that people who cannot work past the current age of receipt can still collect benefits, while further encouraging later receipt by people who wish to work and save for longer.

Increase Tax-Deferred Saving Limits

Canadian income-tax rules limit the amounts of retirement wealth Canadians can accumulate on a tax-preferred basis. Because people are living longer and, even more important, yields on investments suitable for retirement saving are now very low,



the cost of obtaining a given level of retirement income has risen. The current rules for calculating equivalency between DB and DC pension plans or limits for RRSPs are badly out of date, putting people with DC plans and/or RRSPs at a major disadvantage relative to those in DB plans (Robson 2017b). Accordingly, this Shadow Budget updates the assumptions underlying the equivalency factor (Factor of Nine) to reflect current economic and demographic realities. As a result, the tax-deferred savings limit for capital accumulation plans will increase from its current 18-percent-of-income level to 30 percent. Since tax owing on higher contributions is deferred to be paid when invested funds and income are withdrawn, the tax deferral is effectively a current asset to governments – making the fiscal cost of this measure small on a present value basis.

Eliminating Mandatory Drawdowns from RRIFs

The 2015 federal budget's reduction of mandatory minimum withdrawals from registered retirement income funds (RRIFs) and similar tax-deferred accounts reduced the risk that many Canadians would outlive their savings. Yet with yields on safe investments as low as they now are, and longevity increasing, the risk is still material (Robson and Laurin 2015d). The calculations of the new RRIF mandatory minimum withdrawal schedule's impact in the 2015 budget assumed real investment returns of 3 percent. Re-running those projections with real returns on safe investments closer to current levels suggests that most seniors still face a material risk of outliving their tax-deferred savings.

The 2015 changes were only one step toward further liberalization. Therefore, this Shadow Budget launches a consultation on two options: more regular adjustments to keep the withdrawals aligned with returns and longevity; or eliminating minimum withdrawals entirely. The new regime will be in place for the 2019 taxation year. Tax rules should not prevent retirees enjoying the lifelong security they are striving to achieve.

Extending Pre-Age-65 Eligibility for Pension Credit and Income Splitting

Currently, the Pension Income Tax Credit and pension income splitting are available to pension annuity recipients before age 65. However, recipients of funds from other retirement saving vehicles, such as life-income funds, RRIFs and RRSPs, can use the credit or income splitting only at age 65. This Shadow Budget would make these tax provisions available to all such income, regardless of the recipient's age. Table 6 summarizes the fiscal impact of these measures to improve opportunities for Canadians.

COMBINING IT ALL

These Shadow Budget plans for strengthening the economy, achieving a sustainable fiscal framework and improving Canadians' opportunities leave a large federal budget deficit in the short term (Table 1). However, the continuation of these initiatives and prudent management of public finance would ease the path back to surpluses in five years (Figure 2). Therefore, this Shadow Budget provides a sound fiscal framework at the federal level, assuring Canadians that they can pursue their lives and work, save and invest with confidence. It promotes economic growth with tax changes that will encourage investment, work and saving, and international trade. And it enhances opportunities for Canadians working and preparing for their retirement. Whatever the world brings in 2018, this Shadow Budget will help all Canadians prosper now and in the future.

REFERENCES

- Alexander, Craig, and Alexandre Laurin. 2015. "Tax Reform Priorities for Canada: Creating More Wealth to Go Around." E-Brief. Toronto: C.D. Howe Institute. November.
- Aptowitzer, Adam. 2017. "No Need to Reinvent the Wheel: Promoting Donations of Private Company Shares and Real Estate." E-Brief. Toronto: C.D. Howe Institute. September.
- Bazel, Philip and Jack Mintz. 2017. Tax Policy Trends: Whether It Is the U.S. House or Senate Tax Cut Plan – It's Trouble for Canadian Competitiveness. Calgary: The School of Public Policy. November.
- Bergevin, Philippe, and Finn Poschmann. 2013. Reining in the Risks: Rethinking the Role of Crown Financial Corporations in Canada. Commentary 372. Toronto: C.D. Howe Institute. February.
- Bank of Canada. 2016. Monetary Policy Report October 2016.
- Bazel, Philip, and Jack Mintz. 2016. "2015 Tax-Competitiveness Report: Canada Is Losing Its Attractiveness." SPP Research Papers Vol. 9, Issue 37. University of Calgary School of Public Policy. November.
- Boadway, Robin, and Jean-François Tremblay. 2014. "Corporate Tax Reform: Issues and Prospects for Canada." Mowat Research 88. Toronto: University of Toronto, School of Public Policy & Governance, Mowat Centre.
- Boadway, Robin, and Jean-François Tremblay. 2016. *Modernizing Business Taxation*. Commentary 452. Toronto: C.D. Howe Institute. May.
- Brown, Robert L. and Shantel Aris. 2017. Greener Pastures: Resetting the Age of Eligibility for Social Security Based on Actuarial Science. Commentary 475. Toronto: C.D. Howe Institute. April.
- Busby, Colin, and William B.P. Robson. 2017. Numbers You can Trust? The Fiscal Accountability of Canada's Senior Governments, 2017. Commentary 476. Toronto: C.D. Howe Institute. April.

- Busby, Colin, Alexandre Laurin, and David Gray. 2009. "Back to the Basics: Restoring Equity and Efficiency in the EI Program." E-Brief. Toronto: C.D. Howe Institute. August.
- Canada. 2017. "Fall Economic Statement 2017." Ottawa: Department of Finance. October.
- Centre for Addiction and Mental Health. 2012. *Cannabis (Marijuana, Hashish)*. Available online at www.camh.ca
- Ciuriak, Dan, and Xiao Jingliang (2014). *Should Canada Unilaterally Adopt Global Free Trade?* Canadian Council of Chief Executives.
- Chen, Duanjie, and Jack Mintz. 2011. Small Business Taxation: Revamping Incentives to Encourage Growth. Calgary: The School of Public Policy. May.
- Clark, Scott, and Peter DeVries. 2016. "Liberals must reassess promises of both growth and prudence." *Globe and Mail*. February 12.
- Dachis, Benjamin. 2014. Full Throttle: Reforming Canada's Aviation Policy. Commentary 398. Toronto: C.D. Howe Institute. January.
- Dachis, Benjamin, and John Lester. 2015. Small Business Preferences as a Barrier to Growth: Not so Tall After All. Commentary 426. Toronto: C.D Howe Institute. May.
- Dahlby, Bev, and Ergete Ferede. 2011. What Does it Cost Society to Raise a Dollar of Tax Revenue? The Marginal Cost of Public Funds. Commentary 324. Toronto: C.D. Howe Institute. March.
- Dubrovinsky, Mati. 2014. "A Speedier and More Efficient Payments System for Canada." E-Brief. Toronto: C.D. Howe Institute. November.
- Fancy, Tariq. 2012. "Can Venture Capital Foster Innovation in Canada? Yes, but Certain Types of Venture Capital Are Better than Others." E-Brief. Toronto: C.D. Howe Institute. September.

- Gros, Barry et al. 2015. "The Taxation of Single-Employer Target Benefit Plans – Where We Are and Where We Ought To Be." E-Brief. Toronto: C.D. Howe Institute. March.
- Hamilton, Malcom. 2014. Evaluating Public-Sector Pensions: Are Federal Public Servants Overpaid? Commentary 405. Toronto: C.D. Howe Institute. April.
- Howitt, Peter. 2015. Mushrooms and Yeast: The Implications of Technological Progress for Canada's Economic Growth. Commentary 433. Toronto: C.D Howe Institute. September.
- Kelly, Grant, and Peter Stodolak. 2013. *Why insurers fail* – *Natural disasters and catastrophes*. PACICC.
- Koeppl, Thorsten V., and James MacGee. 2015. Mortgage Insurance as a Macroprudential Tool: Dealing with the Risk of a Housing Market Crash in Canada.
 Commentary 430. Toronto: C.D. Howe Institute. July.
- Lahey, James. 2011. "Controlling Federal Compensation Costs: Towards a Fairer and More Sustainable System." In *How Ottawa Spends*, 2011–2012. Christopher Stoney and G. Bruce Doern (eds.). McGill-Queen's University Press.
- Laurin, Alexandre. 2015. "Shifting the Federal Tax Burden on the One-Percenters: A Losing Proposition." E-Brief. Toronto: C.D. Howe Institute. December.
- Laurin, Alexandre, and William B.P. Robson. 2012. *Achieving Balance, Spurring Growth: A Shadow Federal Budget for 2012.* Commentary 344. Toronto: C.D. Howe Institute. March.
- Laurin, Alexandre, and William. B.P. Robson. 2017. *Hidden Spending: The Fiscal Impact of Federal Tax Concessions*. Commentary 469. Toronto: C.D. Howe Institute.
- Le Pan, Nichloas. 2016. *Fault Lines: Earthquakes, Insurance, and Systemic Financial Risk.* Commentary 454. Toronto: C. D. Howe Institute. August.
- McDaniel, Christine, Simon Schropp and Olim Latipov. 2016. Rights of Passage: The Economic Effects of Raising the de minimis Threshold in Canada. E-Brief. Toronto: C.D. Howe Institute. June.

- Milligan, Kevin. 2014. Tax Policy for a New Era: Promoting Economic Growth and Fairness.Benefactors Lecture. Toronto: C.D Howe Institute. November.
- Mirrless, James et al. 2011. *Tax by Design*. Oxford : Oxford University Press. OECD. 2011. Fostering Innovation for Green Growth. P116. ISBN 978-92-64-11991-8.
- Pantaleo, Nick, Finn Poschmann and Scott Wilke. 2013. Improving the Tax Treatment of Intellectual Property Income in Canada. Commentary 379. Toronto: C.D. Howe Institute. April.
- Parliamentary Budget Officer (PBO). 2017. *Economic* and Fiscal Outlook April 2017. Ottawa: Office of Parliamentary Budget Officer. April 28.
- Parsons, Mark. 2011. Rewarding Innovation: Improving Federal Support for Business R&D in Canada. Commentary 334. Toronto: C.D. Howe Institute. September.
- Poloz, Stephen. 2016. From Hewers of Wood to Hewers of Code: Canada's Expanding Service Economy. Speech. Toronto: C.D. Howe Institute. November.
- Quebec. 2015. "Focusing on Québec's Future." Final Report of the Québec Taxation Review Committee. Volume 1. March.
- Robins, Steven. 2017. "A Better Flight Path: How Ottawa can Cash In on Airports and Benefit Travellers." E-Brief. Toronto: C.D. Howe Institute.
- Robson, William B.P. 2010. "Cutting through Pension Complexity: Easy Steps Forward for the 2010 Federal Budget." Backgrounder. Toronto: C.D. Howe Institute. February.
 - . 2017a. Enduring Virtues: Saving and Investing as National Priorities in 2017. Commentary. Toronto, C.D. Howe Institute. January.
 - . 2017b. *Rethinking Limits on Tax-Deferred Retirement Savings in Canada*. Commentary. Toronto, C.D. Howe Institute. November.

- Robson, William B.P., and Alexandre Laurin. 2015. Adaptability, Accountability and Sustainability: Intergovernmental Fiscal Arrangements in Canada. Commentary 431. Toronto: C.D. Howe Institute. July.
- Robson, William B.P., and Alexandre Laurin. 2017. Premium Compensation: The Ballooning Cost of Federal Government Employees. E-Brief. Toronto: C.D. Howe Institute. May.
- Scarth, William. User Discretion Advised: Fiscal Consolidation and the Recovery. Commentary 412. Toronto: C.D. Howe Institute. July.
- Steele, Jana, Angela Mazerolle and Mel Bartlett. 2014. Target-Benefit Plans: An Innovation Worth Expanding. Commentary 411. Toronto: C.D. Howe Institute. July.

NOTES:

NOTES:

RECENT C.D. HOWE INSTITUTE PUBLICATIONS

February 2018	Richards, John, and Parisa Mahboubi. "Measuring Student Outcomes: The Case for Identifying Indigenous Students in Canada's PISA Sample." C.D. Howe Institute E-Brief.
February 2018	Eichenbaum, Martin, Benjamin K. Johannsen, and Sergio Rebelo. <i>Understanding the Volatility of the Canadian Exchange Rate</i> . C.D. Howe Institute Commentary 502.
February 2018	Dachis, Benjamin. Death by a Thousand Cuts? Western Canada's Oil and Natural Gas Policy Competitiveness Scorecard. C.D. Howe Institute Commentary 501.
January 2018	Busby, Colin, Ramya Muthukumaran, and Aaron Jacobs. "Reality Bites: How Canada's Healthcare System Compares to its International Peers." C.D. Howe Institute E-Brief.
January 2018	Macdonald, Bonnie-Jeanne. <i>Headed for the Poorhouse: How to Ensure Seniors Don't Run Out of Cash before they Run Out of Time</i> . C.D. Howe Institute Commentary 500.
January 2018	Wyonch, Rosalie. <i>Risk and Readiness: The Impact of Automation on Provincial Labour Markets.</i> C.D. Howe Institute Commentary 499.
January 2018	Laurin, Alexandre. "Two-Parent Families with Children: How Effective Tax Rates Affect Work Decisions." C.D. Howe Institute E-Brief.
December 2017	Hunter, Lawson, Kenneth G. Engelhart, Peter Miller. <i>Strengthening Canadian Television Content: Creation, Discovery and Export in a Digital World.</i> C.D. Howe Institute Commentary 498.
December 2017	Schwanen, Daniel. <i>Innovation Policy in Canada: A Holistic Approach</i> . C.D. Howe Institute Commentary 497.
December 2017	Found, Adam, and Peter Tomlinson. "Business Tax Burdens in Canada's Major Cities: The 2017 Report Card." C.D. Howe Institute E-Brief.
November 2017	Ciuriak, Dan, Lucy Ciuriak, Ali Dadkhah, and Jingliang Xiao. "The NAFTA Renegotiation: What if the US Walks Away?." C.D. Howe Institute Working Paper.
November 2017	Dachis, Benjamin, William B.P. Robson, and Farah Omran. <i>Fuzzy Finances: Grading the Financial Reports of Canada's Municipalities</i> . C.D. Howe Institute Commentary 496.

SUPPORT THE INSTITUTE

For more information on supporting the C.D. Howe Institute's vital policy work, through charitable giving or membership, please go to www.cdhowe.org or call 416-865-1904. Learn more about the Institute's activities and how to make a donation at the same time. You will receive a tax receipt for your gift.

A REPUTATION FOR INDEPENDENT, NONPARTISAN RESEARCH

The C.D. Howe Institute's reputation for independent, reasoned and relevant public policy research of the highest quality is its chief asset, and underpins the credibility and effectiveness of its work. Independence and nonpartisanship are core Institute values that inform its approach to research, guide the actions of its professional staff and limit the types of financial contributions that the Institute will accept.

For our full Independence and Nonpartisanship Policy go to www.cdhowe.org.



67 Yonge Street, Suite 300, Toronto, Ontario M5E 1J8

Canadian Publication Mail Sales Product Agreement #40008848